STATE FOREST LAND
ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/ watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered " does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

   *Timber Sale Name:*LOW SADDLE *Agreement #:* 30-074954

2. Name of applicant: Department of Natural Resources

3. Address and phone number of applicant and contact person:

   South Puget Sound Region
   950 Farman Ave. N
   Enumclaw, WA 98022
   Telephone: (360) 825-1631
   Contact: Jerry Kvale

4. Date checklist prepared: 01/14/2004

5. Agency requesting checklist: Department of Natural Resources

6. Proposed timing or schedule (including phasing, if applicable):

   a. *Auction Date:*06/16/2004
   b. *Planned contract end date (but may be extended):* 10/31/05
   c. *Phasing:*None.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

   Timber Sale

   a. *Site preparation:* No

   b. *Regeneration Method:*
   HAND PLANT 02/01/2006 71 Acres

   c. *Vegetation Management:*
   Treatment needs will be assessed using current vegetation management guide lines. Control of competing brush within the sale area and along roads will be done in accordance with the Forestry Handbook, dated July 1999.

d. Thinning:
A survey to determine the need for pre-commercial thinning (PCT) will be conducted at age 15. If it is determined that the stand needs PCT the information gained from the survey will be used to schedule the thinning.

Roads:
The 1250 road will remain to be used for future silvicultural projects within the unit. Road maintenance including grading,ditch clean out and the repair or replacement of culverts will occur as necessary on existing roads.

Rock Pits and/or Sale: The Saddle rock pit will remain open for future sales.

Other: This area is currently under a brush lease. Firewood cutting may be allowed after timber harvest.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐*303 (d) – listed water body in WAU:* ☐*temp* ☐*sediment* ☐*completed TMDL (total maximum daily load):*
☐*Landscape plan:*
☐*Watershed analysis:*
☐*Interdisciplinary team (ID Team) report:*
☒*Road design plan:* 1/16/04 *

☒*Wildlife report:* 1/21/04*

☐*Geotechnical report:*
☒*Other specialist report(s):* Geologist, slope stability checklist: dated 7/29/2003 *

☐*Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☒*Rock pit plan:* In the road plan *

☒*Other:* Habitat Conservation Plan (HCP), Forest Resource Plan, TRAX, Soil Survey, Forest Resource Inventory System (FRIS), GIS Analysis, WA Department of Fish & Wildlife (WDFW) and Straits Planning Unit Marbled Murrelet Reclassified Habitat Model and RMAP # 240027
**Reference documents can be obtained at the SEPA Center or the South Puget Sound Region office during the comment period.*

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

No.

10. List any government approvals or permits that will be needed for your proposal, if known.

☐*HPA* ☐*Burning permit* ☐*Shoreline permit* ☒*Incidental take permit* ☒*FPA* ☒*Other: Board of Natural Resources timber sale approval.*

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. Complete proposal description:
This proposal consists of approximately 71 acres of even aged regeneration harvest in one Forest Management Unit (FMU). This FMU is located in the Lilliwaup WAU, within the Hood Canal State Forest in Mason County. The harvest unit is located on flat to gently rolling terrain. Elevation of proposal is approximately 800-1040 feet. Harvesting will be by cable and ground based harvest systems.

There is 2,082 feet of optional road for this proposal. Rock for this proposal may be obtained from any commercial source or the existing Saddle pit on State land. The rest of the roads that will be used are existing. Approximately 7,013 feet of pre-haul maintenance on existing 1200 and 1250 roads are required under this proposal. The district engineer designed all the roadwork for this proposal.

The HCP requires a minimum of 8 leave trees per acre or 40 trees per 5 acres. The leave trees on this sale are evenly scattered. All of the residual old growth, not in the proposed road right-of-way, are marked as leave trees.

Estimated volume of timber to be sold 1.262 MMBF of conifer and hardwoods.

b. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.
This unit contains a stand of second-growth Douglas fir with some western hemlock, white pine, alder and red cedar. The soil site averages 120. There are a few Douglas-fir old growth remenants left from the original harvest. Most of these will remain as legacy and wildlife trees. There are very few snags and not much downed wood. The origin of the stand is 1930.

Objectives for this proposal include: generating revenues for the Capital (07) trust; maintaining biological diversity; maintaining the productivity of the site; protecting water, fish and wildlife.

This unit will be planted back within two years of completion of harvest.

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		2,082	.8	0
Reconstruction		0		0
Abandonment		0		0
Bridge Install/Replace	0			
Culvert Install/Replace (fish)	0			
Culvert Install/Replace (no fish)	4			

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. *(See timber sale map. See also color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")*

a. Legal description:

T23N R4W S14 &23

b. Distance and direction from nearest town (include road names):

This proposal is approximately 3.5 miles west of Hood Canal and 4.5 miles north of Hoodsport.
The primary access for this proposal begins from Hoodsport by going west approximately 7.8 miles from Hoodsport on Highway 119 to the DNR 1000 road. Go east 0.8 miles to the 1200 road, then go north on the 1200 road, 2.0 miles to the beginning of the unit.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")

WAU Name	WAU Acres	Proposal Acres
LILLIWAUP	35050	71
Sub-basin # 13629		49
Sub-basin # 13631		22

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)

WAU or Sub-basin	Total Acres	DNR Managed Acres	Hydrologically Mature DNR Land- Acres	Non-DNR Managed Land	Percent DNR Managed Land	Percent Hydrologically Mature Land	Percent Non-DNR Managed Land	Proposal Acres
Lilliwaup	35,051	16,821	13,226	18,229	48	71	29	71
Sub-basin: #13629	4,180	3,014	There is no acreage information on this sub-basin yet.	1,166	72	There is no acreage information on this sub-basin yet.	28	49
Sub-basin: #13631	3,010	2,941	There is no acreage information on this sub-basin yet.	70	98	There is no acreage information on this sub-basin yet.	2	22

There are 35,051 acres in the Lilliwaup WAU. 42% is private, 10% federally owned and 48% is in State ownership. The State manages approximately 16,821 acres. In the past 7 years, the State has harvested about 2,322 acres in regeneration harvests and 474 acres in a partial cut. All regeneration harvests have been reforested. The harvest rate is about 2.0% of the land base per year on State lands. Private lands have had approximately 2,100 acres under Forest Practice Permits for some type of harvest over the last seven years. This is less than 2% per year on non-State ownership in the WAU. Future harvests in the WAU will continue at or below the same rate. All harvests on state land since 1999 have been under our HCP guidelines.

The primary environmental issues identified in this area were, stream and wetland quality and lack of wildlife habitat.
The Type 1 and 2 streams have riparian management zones protecting them. The boundaries along these streams were located on the flater, stable ground at least 15-25 feet beyond the slope breaks. This will mimize the potential of sediment delivery to the streams and preserve water quality. A 170 foot average buffer protects the Type A wetland to the southwest of the unit.

The Road has been designed to avoid potentially sensitive areas and is located on stable slopes. All roads will have adequate drainage structures that comply with all HCP and Forest Practice Rules. Riparian Management Zones and wildlife trees will serve to enhance diversity, provide habitat and aid in soil protection. Ground based yarding will be limited to slopes less than 30 percent. During yarding log ends will be required to be suspended above the ground to reduce soil disturbance.

There is a lack of snags and large downed logs. Approximtely 570 leave trees are marked within the unit to preserve structural diversity for wildlife habitat. In addition to that, at least 2 downed logs per acre will be left after harvest. The site will be planted within two years of harvest with Douglas fir, western white pine and red cedar.

Future activities in the WAU within the next 2 years include road maintenance, timber harvest and silviculture activities. These activities will continue to follow Forest Practices Rules and the HCP. This will ensure that all components of the environment are adequately protected and preserved to minimize the chance of adverse impacts.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☐Rolling, ☐Hilly, ☐Steep Slopes, ☐Mountainous, ☒Other: Flat to gently rolling terrain

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).

The Lilliwaup WAU runs from 4,000 feet to sea level with landforms ranging from steep mountains to glacial outwash. Rain-on-snow zones occur at the higher elevations with rainfall ranging from 60 to 100 inches per year. The following lists are summaries for the WAU:

PRECIPITATION:
743 acres with50"/yr.
5,056 acres with 60"/yr.
16,109 acres with 70"/yr.
9,515 acres with 80"/yr.
2,495 acres with 90"/yr.
1133 acres with 100"/yr.

RAIN-ON-SNOW:
3,297 acres in Peak rain-on-snow zone
20,201 acres in Lowland zone
6,365 acres in Rain dominated zone
5,188 acres with no information.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

b. What is the steepest slope on the site (approximate percent slope)?

c.

55% on less than 3 percent of the unit area.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
2973	GRAVELLY SANDY LOAM	5-15	44	INSIGNIFIC'T	LOW
2974	GRAVELLY SANDY LOAM	15-40	26	LOW	LOW
3892	V.GRAVELLY SILT LOAM	60-90	1	HIGH	HIGH

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

1) Surface indications:
Yes. To the northeast of the unit is a hummocky, alder-dominated area that appears to be a past deep-seated landslide. Tension cracks were observed to the south of the unit above Kvale Creek.

2) Is there evidence of natural slope failures in the sub-basin(s)?
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*

Evidence of two shallow rapid failures were observed on steep slopes above Kvale Creek. The hummocky, alder-dominated area to the northeast of the unit appears to be a past deep-seated failure. Other areas within the sub-basin with steep banks along major streams have slumped into the streams. This proposal is not near any of these streams.

3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
Associated management activity:
This response is for the entire WAU. No failures noted in the sub-basins. The only ones known are minor in the Washington Pass area on National Forest land and one minor slump on a 70-year-old railroad grade in Section 26, Township 23 North, Range 4 West, W.M. They failed because of poor road building practices in the 1930's

4) Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?
☒*No* ☐*Yes, describe similarities between the conditions and activities on these sites:*

5) Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.

Stream buffers along the south and eastern boundaries were located back from the top of the slope break to reduce delivery potential. The hummocky area to the northeast of the unit was excluded from the harvest unit as well as the drainages to the north that appeared to contain old debris flows. The incised Type 5 tributary to Kvale creek was bounded out of the harvest unit. No harvest will occur on unstable slopes and no equipment will be allowed to operate on slopes exceeding 30%. All streams and wetlands were buffered according to HCP requirements.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Approx. acreage new roads: .8 *Approx. acreage new landings:*1.0 ac. *Fill source:* Fills will come mostly from the road building cuts on site. If any more fill is required, it will come from the Saddle rock pit.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes, based on experience, minor erosion could occur from exposed soil on roads, landings and skid trail surfaces.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

A total of 2,082 feet of road will be constructed for this proposal. All 2,082 feet of road will remain after harvesting is completed. That equals 0.8 ac or less than 1 percent of the proposal area.

h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)

Road locations are on stable soils and have little potential for sediment deliverty to typed streams. Rutting restrictions and diverting water off road surfaces and unto the forest floor will minimize the porential for erosion.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling,* automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Insignificant amounts of engine exhaust from logging equipment and dust on roads from log truck traffic.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
None.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map and forest practice base maps.)*

a) Downstream water bodies:
Lilliwaup creek is a Type 1 stream that flows along the east boundary. Kvale creek is a Type 2 stream along the south boundary that flows into Lilliwaup creek.There is a class A wetland along the southwest boundary. There is a Type 5 stream that flows through the western point of the unit and another that flows from the south part of the unit into Kvale creek.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Stream: Lilliwaup creek	1	1	200+
Stream: Kvale creek	2	1	170
Stream	5	1	25
Wetland	A	1	170

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

The riparian buffer widths average 200 foot along the Type 1 and 170 foot along the Type 2 streams. The buffer along the class A wetlands averages 170 feet. The Type 5 stream on the south was buffered with at least a 25 foot buffer because it had an incised channel. The other Type 5 stream will have the equipment limitation zone. No operations or harvesting equipment will be allowed in the RMZ's and the other Type 5 stream and we believe wind buffers are not necessary along the RMZ's.

2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐*No* ☒*Yes (See RMZ/WMZ table above and timber sale map.)*
Description (include culverts):
The streams and wet lands that are adjacent to this proposal were identified during the initial field reconnaissance. All buffers meet the requirements of the HCP. A total of 4 culverts will be installed during road construction, none of them will be stream crossings.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation.)*
☒*No* ☐*Yes, description:*

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒*No* ☐*Yes, describe location:*

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒*No* ☐*Yes, type and volume:*

7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?
Yes. The following is for the entire Lilliwaup WAU: There is no data available for the sub-basins.

SURFACE EROSION POTENTIAL
HIGH -- 1,895 Acres (6%)
MEDIUM-- 4,3596 Acres (13%)
LOW -- 18,996 Acres (59%)
VARIABLE -- 29 Acres
DOES NOT APPLY -- 493 Acres (2%)
NO DATA -- 6570 Acres (20%)

MASS WASTING POTENTIAL
HIGH – 6,004Acres (19%)
MEDIUM -- 1,914 Acres (6%)
LOW -- 3,489 Acres (11%)
INSIGNIFICANT -- 14,318 Acres (44%)
NO DATA – 6,632Acres (20%)

The majority of the soils that are susceptible to mass wasting and erosion are located on the steeper side slopes of the major streams of this WAU. This proposal is located on stable flat to gently rolling soils.

8) Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?
☐*No* ☒*Yes, describe changes and possible causes:*
The steep incised channels continually have minor slope failures in this WAUs. This is a natural process and is unrelated to any forest practice activities. There is no evidence of this within the sale area.

9) Could this proposal affect water quality based on the answers to the questions 1-8 above?
☒*No* ☐*Yes, explain:*

10) What are the approximate road miles per square mile in the WAU and sub-basin(s)?
Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒*No* ☐*Yes, describe:*
Road miles per square mile in the Lilliwaup WAU: DNR- 2.7
NON-DNR- 3.7

*11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☒*No* ☐*Yes, approximate percent of WAU in significant ROS zone.*
Approximate percent of sub-basin(s):

12) If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?

13) Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?
☐*No* ☒*Yes, describe observations:*
Streams within these WAUs have experienced accelerated aggradation in low gradient reaches. In general, the stream systems currently contain excess fine sediments. This has occurred primarily from natural storm events. There is evidence of stream aggradation outside this sale area like with Nomad creek in section 2 of this same township.

14) Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.
With proper road construction and regular maintenance, any runoff will be minimized.

15) Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?
☒*No* ☐*Yes, possible impacts:*

16) Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.

Some minor runoff may occur from roads during peak flows, but cross drain culverts have been designed and will be installed to direct ditchwater onto the forest floor prior to entering any surface water. Periodic maintenance should prevent any failures.

b. Ground *Water*:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
No.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Insignificant amounts of oil and other lubricants may be discharged inadvertently as a result of heavy equipment use. No oils or lubricants will be disposed of on site.

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☒*No* ☐*Yes, describe:*

a) Note protection measures, if any.

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

The existing cross drains and ditch outs disperse storm water from the ditches onto the forest floor. The frequent spacing of culverts and ditch outs will minimize the distance water flows before being dispersed onto the forest floor. Consequently, no surface or ditch water flows directly into existing stream channels. No water runoff will be channeled onto exposed soils.

2) Could waste materials enter ground or surface waters? If so, generally describe.
Yes.
a) Note protection measures, if any.

The timbered buffers protecting wetlands and streams will reduce the possibility of waste materials entering surface waters. No lubricants or containers will be disposed of on site.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

4. Plants

a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☒alder, ☒maple, ☐aspen, ☒*cottonwood,* ☐*western larch,* ☐*birch,* ☐other:
☒evergreen tree: ☒*Douglas fir,* ☐*grand fir,* ☐*Pacific silver fir,* ☐*ponderosa pine,* ☐*lodgepole pine,* ☒*western hemlock,* ☐*mountain hemlock,* ☐*Englemann spruce,* ☐*Sitka spruce,* ☒*red cedar,* ☐*yellow cedar,* ☒other: White Pine
☒shrubs: ☒*huckleberry,* ☐*salmonberry,* ☒*salal,* ☒*other: Vine maple*
☐grass
☐pasture
☐crop or grain
☐wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☐skunk cabbage, ☐*devil's club,* ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☐other types of vegetation: : Braken and sword fern
☐*plant communities of concern:None*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*

All merchantable timber will be removed except 8 leave trees per acre and these are evenly scattered throughout the units. Logging equipment will pull the Vine maple and disturb much of the under-story shrubs within the harvest area. This under-story will easily regenerate itself once the harvest operations are complete. Streams and wetlands have buffers that meet HCP requirements along their perimeters. No harvest operations will occur within these buffers. Scattered residual old growth trees have also been marked as leave trees. See sale area map for buffer locations.

1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")
A unit logged in 1998 and replanted is located to the northwest of the proposal. The remainder of adjacent stands are 73 year old conifer stands.

2) Retention tree plan:
This unit has very few snags. Scattered leave trees are marked with blue paint at a rate of 8 leave trees per acre. The leave trees account for over 10% of the stand for trees over 12 inches diameter at breast height (DBH). All residual old growth Douglas fir and old growth cedar within the units were marked as leave trees. The other leave trees are vigorous second growth Douglas fir, western hemlock and red cedar.

c. List threatened or endangered *plant* species known to be on or near the site.

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Approximately 200 Douglas fir, 50 white pine and 50 red cedar seedlings per acre will be planted within 2 years following harvest. Western hemlock and red alder will naturally seed in the harvest area.

5. Animal

a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, ☐*pigeon,* ☐other:
mammals: ☒deer, ☒bear, ☒elk, ☐beaver, ☐other:

fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐*talus slopes,* ☐*caves,* ☐*cliffs,* ☐*oak woodlands,* ☐*balds,* ☐*mineral springs*

b. List any threatened or endangered species known to be on or near the site *(include federal- and state-listed species).*

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

This proposed sale is within the Straits Planning Unit that has a Marbled Murrelet Reclassified Habitat Model. The proposed sale does not contain any occupied or voluntarily deferred habitat as defined/delineated by the agreement letter between DNR and the USFWS dated April 18, 2003. Both the letter and map are on file at South Puget Sound Region Office. See the biologist report for more details.

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:* *Explain if any boxes checked:*
The wetlands adjacent to this proposal are used by migrating birds for resting and foraging but this proposal does not contain any resting areas for waterfowl .

d. Proposed measures to preserve or enhance wildlife, if any:

This proposal conforms to all the 1997 DNR Habitat Conservation Plan (HCP). The HCP includes a number of strategies to enhance and preserve wildlife over time. Specific to this proposal is the riparian strategy (to conserve and protect habitat for species that are dependent on aquatic and riparian habitat), and quality leave tree retention (which may provide critical elements for upland species and preserve long term site productivity through the maintenance of forest processes). Leave trees are wind firm and well-formed dominant and co-dominant trees representing the current diversity of species.

In addition, individual species and tree types known to have high wildlife use have been retained. Trees with unique characteristics (such as forked or damaged tops) will be retained throughout the sale to provide current and future habitat for a variety of wildlife species including woodpeckers, sapsuckers, and cavity dwellers.

1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.

Species /Habitat: Riparian — Protection Measures: 100-200 foot buffers
Species /Habitat: Upland — Protection Measures: Dominant/co-dominant leave trees

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
N/A

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
N/A

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
N/A

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

1) Describe special emergency services that might be required.

Minimal health hazard due to operating heavy equipment and the minor spillage of fuel and lubrication oils are always present with this type of operation. The risk of forest fire is always present and will be increased for about two years following harvest due to logging slash.

2) Proposed measures to reduce or control environmental health hazards, if any:

Fire equipment will be required on site during closed fire season. Operations will cease if relative humidity falls below 30%.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None.

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.
Logging, road construction and maintenance and forest products hauling operations will create increased noise during the operating season. None of this is an increase above normal historical use.

3) Proposed measures to reduce or control noise impacts, if any:
None.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? *(Site includes the complete proposal, e.g. rock pits and access roads.)*
Timber production/forest management.

b. Has the site been used for agriculture? If so, describe.

No.

c. Describe any structures on the site.
Does not apply.

d. Will any structures be demolished? If so, what?
Does not apply.

e. What is the current zoning classification of the site?
Mason County has no zoning.

f. What is the current comprehensive plan designation of the site?
Long-term commercial forestry.

g. If applicable, what is the current shoreline master program designation of the site?
Does not apply.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
No.

i. Approximately how many people would reside or work in the completed project?
None.

j. Approximately how many people would the completed project displace?
None.

k. Proposed measures to avoid or reduce displacement impacts, if any:
None.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
This proposal meets all Forest Practice, the DNR Forest Resource Plan and HCP guidelines.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
N/A

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
N/A

c. Proposed measures to reduce or control housing impacts, if any:
N/A

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?
N/A

b. What views in the immediate vicinity would be altered or obstructed?
No residential views in the immediate area will be altered by this proposal. Views from forest roads will be altered from timbered (200+ trees per acre) to harvested (8 trees per acre). Riparian/wetland zones within the sale will serve to break up these altered views

1) Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?
☒*No* ☐*Yes, viewing location:*

2) Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?
☒*No* ☐*Yes, scenic corridor name:*

3) How will this proposal affect any views described in 1) or 2) above?
N/A

c. Proposed measures to reduce or control aesthetic impacts, if any:
Reforestation will occur within two years following harvest. Mature wildlife reserve/green recruitment trees (8 per ac.) will be left and scattered in the units.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
N/A

b. Could light or glare from the finished project be a safety hazard or interfere with views?
N/A

c. What existing off-site sources of light or glare may affect your proposal?
N/A

d. Proposed measures to reduce or control light and glare impacts, if any:
N/A

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?
Hunting, hiking, recreational mushroom picking and occasional elk watching.

b. Would the proposed project displace any existing recreational uses? If so, describe:
No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
No.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
None known.

c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)
None.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.
Haul routes will utilize state forest roads before connecting with state highway 119. See vicinity map.

1) Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?
No.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
No.

c. How many parking spaces would the completed project have? How many would the project eliminate?
None.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

Yes. All roadwork in this proposal applies to DNR managed roads. 2,802 feet of optional roads may be constructed for use during this proposal. We will maintain the new and existing roads by grading and reparing as necessary.

1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?

There will be a short-term increase in traffic during the operation period for this proposal due to forest products and equipment hauling. The established forest roads under this proposal will not affect the overall transportation system to the public.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Peak traffic volumes may occur during the late spring to late summer months. Up to 12-log truck trips per day could be possible. No log truck traffic after the sale is complete.

g. Proposed measures to reduce or control transportation impacts, if any:
None

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Yes. Wildfire would need response from Department of Natural Resources and county fire department. Accidents would need county EMS response.

b. Proposed measures to reduce or control direct impacts on public services, if any.
None.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
None.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
Does Not Apply.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: Jerry Kvale Date: 1/16/04
Title: Unit Forester

Reviewed by : Herb Cargill Date: 1/22/04
Title: Operations Manager

Approved by: _____ Date: _____
Art Tasker, Acting Region Manager